

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application.

**Listing of Claims:**

1. (currently amended) Active vibration isolation system arranged to isolate a payload (39) from earth movements, said payload (39) being supported by means of at least one spring (43) and used as an inertial reference mass, said system comprising:

\_\_\_\_\_ a mass (41) supporting said payload (39) by means of said at least one spring (43) and being supported by a base body (16;51) via a further spring (45);

\_\_\_\_\_ a sensor (59) for sensing a displacement of said payload (39) relative to said mass (41) and generating a displacement signal, wherein the displacement signal is an indication of the change of distance (d2) between the payload (39) and said mass (41);

\_\_\_\_\_ a controller (49) for receiving said displacement signal and generating a control signal based on said displacement signal; [[,]] and

\_\_\_\_\_ an actuator (47) arranged to generate in parallel with the further spring (45) between said mass (41) and said body (16; 51), said actuator (47) for generating an actuation force based on said control signal, characterized in that said system comprises a mass (41) supporting said payload (39), said sensor is arranged to sense a displacement of said payload (39) relative to said mass, and said actuator is arranged to apply and applying said actuating force to said mass (41), such that said payload (39) is used as an inertial reference mass.

2. (original) Active vibration isolation system according to claim 1, wherein said payload (39) supports one or more devices (57).

3. (canceled).

4. (currently amended) Active vibration isolation system according to ~~claim 3~~, claim 1, wherein said body is earth (16).

5. (currently amended) Active vibration isolation system according to ~~claim 3~~, claim 1, wherein said body is a base frame (51) supported by earth (16) by means of at least one ~~leg~~ supporting device (53, 55).

6. (currently amended) Active vibration isolation system according to ~~claim 3~~, claim 1, wherein said further spring (45) is arranged to provide said mass (41) with an eigenfrequency in the range from 1-10 Hz.

7. (previously presented) Active vibration isolation system according to claim 1, wherein said spring (43) is arranged to provide said payload (39) with an eigenfrequency in the range from 0.1-10 Hz.

8. (previously presented) Lithography apparatus provided with an active vibration isolation system according to claim 1.

9. (currently amended) Method of active vibration isolation to isolate a payload (39) from earth movements, comprising:

- supporting said payload (39) by ~~means of~~ by a mass (41) via at least one spring (43), said payload (39) being used as an inertial reference mass,
- providing a sensor for sensing a displacement of said payload (39) relative to said mass (41) and generating a displacement signal, said displacement signal being an indication of the change of distance (d2) between said payload (39) and said mass(41),
- generating a control signal based on said displacement signal,
- generating an actuation force via an actuator (47) based on said control signal, characterized by

\_\_\_\_\_ supporting said payload (39) by a mass (41),  
\_\_\_\_\_ sensing a displacement of said payload (39) relative to said mass, and  
- applying said actuating force on said mass (41), ~~such that said payload (39) is used as an inertial reference mass~~ wherein said mass (41) is supported by a base body (16; 51) via a further spring (45) between said mass (41) and said body (16; 51), and said actuator (47) is arranged between said mass (41) and said base body (16; 51) in parallel with the further spring (45).

10. (currently amended) Method according to claim 9, further comprising:

\_\_\_\_\_ supporting one or more devices (57) by said payload (39), and using said one or more devices (57) in an industrial process.